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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of

Establishment of Rules and Policies for the
Digital Audio Radio Service in the
2310-2360 MHz Frequency Band

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IB Docket No. 95-91
GEN Docket No. 90-357

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REPLY COMMENTS OF THE CONSUMER ELECTRONICS GROUP
OF THE ELECTRONIC INDUSTRIES ASSOCIATION

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EXECUTIVE SUMMARY

EIA/CEG's enthusiasm for DARS has been fueled by its recently completed laboratory tests of various DARS technologies. The initial comments in this proceeding reflect a similar enthusiasm, and they likewise support prompt deployment of satellite-based DARS systems. The technical and service issues raised by this proceeding therefore should be addressed expeditiously, and to assist in that effort, EIA/CEG will provide the Commission the results of its field tests of DARS technologies as soon as they are available.

EIA/CEG also believes that, once completed, its testing and evaluation of DARS technologies will suggest a minimum transmission standard for satellite- and terrestrial-based DARS systems. To facilitate rapid and cost-effective deployment of DARS, the Commission should adopt such a transmission standard for both types of systems. A single, industry-developed transmission standard will promote competition in the development of end-user equipment, will maximize consumer choice among equipment options, and will thereby bring the benefits of DARS to the greatest number of people at the lowest cost and in the shortest time possible.

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**REPLY COMMENTS OF THE CONSUMER ELECTRONICS GROUP
OF THE ELECTRONIC INDUSTRIES ASSOCIATION**

The Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") hereby replies to the comments that were filed in response to the Commission's Notice of Proposed Rulemaking ("*Notice*") in the above-captioned proceeding on September 15, 1995.¹ With the notable exception of the comments filed by terrestrial broadcasters, the record of this proceeding reflects widespread support for the prompt deployment of satellite-based Digital Audio Radio Service ("DARS"). Given this support and the public's demand for compact disc ("CD") quality radio service, the Commission should adopt technical and service rules for DARS as expeditiously as possible. To facilitate the rapid and cost-effective deployment of DARS systems, the Commission also should adopt a single, industry-developed transmission standard for both satellite- and terrestrial-based DARS systems. Moreover, to assist the Commission in resolving the issues presented by this proceeding, EIA/CEG will provide the

¹ See *Establishment of Rules and Policies for the Digital Audio Radio Service in the 2310-2360 MHz Frequency Band*, IB Docket No. 95-91, GEN Docket No. 90-357, FCC 95-229 (released June 15, 1995).

Commission with the results of its ongoing evaluation of competing DARS technologies as these data become available.

I. THE COMMISSION SHOULD FINALIZE ITS PROPOSED TECHNICAL AND SERVICE RULES FOR DARS AS EXPEDITIOUSLY AS POSSIBLE.

The comments in this proceeding demonstrate deep-rooted enthusiasm for satellite DARS. Numerous programmers,² organizations representing listening groups,³ and equipment manufacturers⁴ have urged the Commission to do what it can to make satellite DARS a reality as promptly as possible. These parties look forward with anticipation to exploiting -- and enjoying -- the unique and profound advantages of satellite DARS.

According to these commenters, satellite-based DARS systems, with their vast geographic footprint and large number of channels, will benefit the public by dramatically expanding the reach and diversity of today's radio programming. KJAZ Satellite Radio ("KJAZ"), for example, points to the difficulties which jazz stations now encounter in regional markets because of their inability to develop commercially viable listening audiences.⁵ KJAZ

² See, e.g., Comments of Muzak, DBS Division, IB Docket No. 95-91, at 1 (Aug. 24, 1995); Comments of Willow Mixed Media, Inc., IB Docket No. 95-91, at 1 (Aug. 23, 1995).

³ See, e.g., Comments of American Council for the Arts, IB Docket No. 95-91, at 1 (Aug. 25, 1995); Comments of American Federation of Teachers, IB Docket No. 95-91, at 1 (Sep. 15, 1995).

⁴ See, e.g., Comments of Consumer Electronics Group of the Electronic Industries Association, IB Docket No. 95-67, at 4-6 (Sep. 15, 1995) [hereinafter "EIA/CEG Comments"]; Comments of Dolby Laboratories, Inc., IB Docket No. 95-91, at 2 (Sep. 14, 1995).

⁵ See Comments of KJAZ Satellite Radio, IB Docket No. 95-51, at 1 (Aug. 31, 1995).

anticipates that, in addition to improving audio quality, satellite DARS will allow jazz programmers to accumulate listeners on the scale necessary to sustain an all-jazz format.⁶ National Public Radio, Minnesota Public Radio, and Native American Public Broadcasting similarly view satellite DARS as a means of expanding the audiences for their educational and cultural programming.⁷

The United Church of Christ, American Baptist Churches, and the Southern Baptist Convention's Radio and Television Commission see another value in satellite DARS, namely, its extraordinary ability to reach their target audiences.⁸ The Children's Miracle Network, which raises funds for its non-profit activities through radio, sees in satellite DARS an enhanced ability to reach its audience and to expand its public services.⁹ All Pro Sports and Entertainment, an organization which represents professional athletes, observes that satellite DARS can expand the diversity of sports programming for radio audiences in much the same way as cable has done for television audiences.¹⁰

⁶ See *id.* at 2.

⁷ See Comments of National Public Radio, Inc., IB Docket No. 95-91, at 5-6 (Sep. 15, 1995); Comments of Minnesota Public Radio, IB Docket No. 95-91, at 1 (Sep. 19, 1995); Comments of Native American Public Broadcasting Consortium, IB Docket No. 95-91, at 2 (Aug. 30, 1995).

⁸ See Comments of United Church of Christ, *et al.*, IB Docket No. 95-91, at 4 (Sep. 15, 1995); Comments of Office of Communication of the American Baptist Churches USA, IB Docket No. 95-91, at 1 (Sep. 1, 1995); Comments of Radio and Television Commission of the Southern Baptist Convention, IB Docket No. 95-91, at 1 (Aug. 31, 1995).

⁹ See Comments of Children's Miracle Network, IB Docket No. 95-91, at 1 (Sep. 11, 1995).

¹⁰ See Comments of All Pro Sports and Entertainment, Inc., IB Docket No. 95-91, at 1-2 (Aug. 28, 1995).

The National Cable Satellite Corporation ("C-SPAN") notes that satellite DARS could facilitate the development of new programming and formats, such as national delivery of C-SPAN by radio.¹¹ Other potential programmers also note that the economies of scale inherent in delivering programming by satellite will enable them to aggregate audiences in rural and niche markets and to develop programming specifically for those markets. For example, Access Innovations, a company focusing on distance learning and rural education, sees satellite DARS as a means of bringing its services to a wider rural market.¹² Learning Systems Architects likewise aspires to reach adult students wherever they may be.¹³ For My People, an organization promoting African-American awareness through television, views satellite DARS as a vehicle for delivering (and introducing more Americans to) more diverse radio programming than now exists.¹⁴ Niall Enterprises, Inc. and the USDA Forest Service envision using satellite DARS's data capabilities to deliver more customized weather reports.¹⁵

Organizations representing listening groups similarly look forward to the improved coverage, wider selection of programs, and new programming formats which satellite DARS will

¹¹ See Comments of National Cable Satellite Corporation d/b/a C-SPAN, IB Docket No. 95-91, at 2 (Sep. 14, 1995).

¹² See Comments of Access Innovations, Inc., IB Docket No. 95-91, at 1-2 (Sep. 4, 1995); *see also* Comments of American Council on Rural Special Education, IB Docket No. 95-91, at 1 (Sep. 15, 1995).

¹³ See Comments of Learning Systems Architects, IB Docket No. 95-91, at 1 (Sep. 12, 1995).

¹⁴ See Comments of For My People, IB Docket No. 95-91, at 1 (Sep. 12, 1995).

¹⁵ See Comments of Niall Enterprises, Inc., IB Docket No. 95-91, at 1 (Aug. 23, 1995); Comments of USDA Forest Service National Weather Program, IB Docket No. 95-91, at 1 (Sep. 6, 1995).

make possible. These organizations represent rural interests¹⁶ and ethnic heritage groups.¹⁷ Comments supporting the prompt inauguration of satellite DARS also were filed by organizations interested in satisfying the unique listening needs of the elderly¹⁸ and of those who spend a significant amount of time driving on our Nation's highways.¹⁹

The commenting parties also correctly point out that the deployment of satellite DARS will improve digital compression technology and promote the development of sophisticated, small, and inexpensive satellite antennas.²⁰ Widespread acceptance and use of DARS in the United States will drive down the price of DARS components and create new export opportunities for U.S. manufacturers. In short, satellite DARS will keep U.S. companies at the forefront in developing this technology.

¹⁶ See Comments of Wyoming Farm Bureau Federation, IB Docket No. 95-91, at 1 (Aug. 24, 1995); Comments of Maine Farm Bureau Association, IB Docket No. 95-91, at 1 (Aug. 28, 1995).

¹⁷ See Comments of Italian Cultural Society, IB Docket No. 95-91, at 1 (Sep. 11, 1995); Comments of Italian Industries Association, IB Docket No. 95-91, at 1 (Sep. 11, 1995); Comments of National Asian American Telecommunications Association, IB Docket No. 95-91, at 2 (Aug. 29, 1995); Comments of New York Chinatown Senior Citizen Center, Inc., IB Docket No. 95-91, at 1 (Sep. 7, 1995); Comments of Foundation for the Advancement of Hispanic Americans, IB Docket No. 95-91, at 1 (Sep. 12, 1995).

¹⁸ See Comments of American Association of Homes and Services for the Aging, IB Docket No. 95-91, at 1 (Sep. 5, 1995).

¹⁹ See Comments of Recreation Vehicle Industry Association, IB Docket No. 95-91, at 1 (Aug. 25, 1995); Comments of Recreation Vehicle Dealers Association of North America, IB Docket No. 95-91, at 1 (Aug. 28, 1995); Comments of Owner-Operator Independent Drivers Association, Inc., IB Docket No. 95-91, at 1-2 (Aug. 24, 1995).

²⁰ See, e.g., Comments of Diginet Communications, Inc., IB Docket No. 95-91, at 1 (Aug. 29, 1995); Comments of Orbital Sciences Corp., IB Docket No. 95-91, at 3 (Sep. 15, 1995).

Given the substantial support and pent-up consumer demand for satellite DARS, the Commission should expeditiously establish a regulatory framework for this new service, taking into account the results of the testing now being conducted by EIA/CEG. As EIA/CEG noted in its initial comments, EIA/CEG's DAR Subcommittee and the National Radio Systems Committee's DAB Subcommittee are proceeding apace with their efforts to assess the capabilities of competing DARS technologies. EIA/CEG is now conducting field tests to supplement its laboratory tests and will provide the Commission with test data as they become available. These results should help the Commission in resolving the technical issues identified by the *Notice*. In the meantime, the Commission should proceed with a view towards ensuring that DARS systems are introduced, and the public enjoys the benefits of DARS technology, as early as possible.²¹

Certain terrestrial broadcasters have asked the Commission to delay the deployment of satellite DARS until they are in a position to deploy terrestrial DARS.²² The Commission, of course, should be sensitive to the needs of these broadcasters and the impact of satellite DARS on their operations. But the emphasis should not be on delay. Rather, the Commission should encourage the development of terrestrial DARS. The best way to accomplish this goal is to proceed with the development of satellite DARS, the marketplace demand for which will stimulate terrestrial broadcasters to expedite their DARS efforts.

²¹ See EIA/CEG Comments at 10-11.

²² See, e.g., Comments of Noble Broadcast Group, Inc., IB Docket No. 95-91, at 5 (Sep. 15, 1995).

II. THE COMMISSION SHOULD ADOPT A SINGLE, INDUSTRY-DEVELOPED TRANSMISSION STANDARD FOR SATELLITE- AND TERRESTRIAL-BASED DARS.

As EIA/CEG explained in its initial comments, one of the Commission's principal goals in this proceeding should be the adoption of a single, industry-developed transmission standard for DARS.²³ At the very least, the Commission should require interested industry groups to work towards this goal. Once the current testing and evaluation of DARS technologies are completed, those test results should suggest minimum transmission standards for satellite and terrestrial DARS.

These standards will create a foundation on which individual entrepreneurs and the marketplace can build to satisfy consumer demand. As EIA/CEG noted, the Commission's past experiences with television and AM stereo clearly demonstrate the benefits of uniform transmission standards.²⁴ Simply put, transmission standards maximize uniformity among consumer products, thereby increasing manufacturers' economies of scale and ultimately consumer value. In the absence of transmission standards, the cost of developing receivers and other equipment for disparate DARS systems could push the price of digital radio beyond what many consumers are willing to pay. The absence of an industry standard would also impair the ability of consumers to switch seamlessly between satellite- and terrestrial-based DARS systems.²⁵

²³ See EIA/CEG Comments at 6-9.

²⁴ See *id.* at 8-9.

²⁵ Transmission standards obviate the need for receiver standards. Once transmission standards are adopted, manufacturers can tailor products based on them to meet consumer demand. Indeed, receiver standards would be counterproductive in that they necessarily would limit the options of manufacturers and thus consumers.

Ford Motor Company ("Ford") has made this same critical point.²⁶ Like EIA/CEG, Ford sees the value of rules which promote the development of high-quality, low-cost receivers. As Ford correctly recognizes, a single transmission standard is an essential step towards achieving this goal.²⁷ The adoption of such a standard will also benefit consumers by providing them with maximum flexibility in selecting DARS programming and ancillary services.

The Joint Comments of the DARS Applicants ("DARS Applicants") acknowledge the value of a single transmission standard as well. They note that "a satellite DARS receiver capable of being tuned across the entire band implemented for DARS . . . will stimulate interest in DARS, encourage various manufacturers to begin early receiver production, and provide a user-friendly consumer environment."²⁸ They therefore pledge to work with EIA/CEG in developing such a standard; however, they urge the Commission not to require one.²⁹ They also implicitly reject the notion of a single standard for both satellite- and terrestrial-based DARS.³⁰

The Commission should not rely on the DARS Applicants' commitments. To begin with, they are neither enforceable nor unequivocal. EIA/CEG fears that, once the DARS

²⁶ See Comments of Ford Motor Company, IB Docket No. 95-91, at 3-4 (Sep. 14, 1995) [hereinafter "Ford Comments"].

²⁷ See *id.*

²⁸ Joint Comments of American Mobile Radio Corporation, Digital Satellite Broadcasting Corporation, Primosphere Limited Partnership, and CD Radio, Inc., IB Docket No. 95-91, at 3 (Sep. 15, 1995).

²⁹ See *id.*

³⁰ See *id.* at 3-4.

Applicants receive their licenses, they will seek a competitive advantage in developing their own unique transmission standards. Although EIA/CEG shares the view of many in industry that the Commission should not be in the standards-setting business, that is not what is at issue here. Rather, EIA/CEG has asked the Commission to require the use of a single transmission standard *that has been developed by industry for use by industry*. If terrestrial broadcasters are not to be disadvantaged vis-a-vis satellite DARS operators, this transmission standard must accommodate both satellite-based and terrestrial-based DARS systems. Only in this way will local broadcasters be able to compete for mobile and stationary DARS listeners.

Without Commission action in this area, there can be no assurance that healthy, pro-consumer competition will develop in the end-user equipment market. Indeed, implicit in Ford's comments is the concern that DARS operators might attempt to use proprietary transmission standards or other mechanisms to limit competition in the end-user equipment market.³¹ The Commission should therefore maximize consumer choice and thus promote the public interest by requiring DARS operators -- both satellite- and terrestrial-based -- to use the same industry-developed transmission standard.

³¹ See Ford Comments at 5-6.

III. CONCLUSION

For all of the reasons set forth above and in its initial comments, EIA/CEG urges the Commission to establish a DARS regulatory regime as promptly as possible so that consumers can enjoy the benefits of digital radio at an early date, to require the use of a single industry-developed transmission standard so that consumers can enjoy the benefits of both satellite- and terrestrial-based DARS, and, in pursuing these goals, to take advantage of the testing and evaluation now being conducted by EIA/CEG.

Respectfully submitted,

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